

SPECIFICATION

Please replace the paragraphs [0009 – 0012] with the following paragraphs:

Note that dimensions of the shell casing 111 are often reduced to lower material cost. With a smaller shell casing 111, the optical image system must be designed within the reduced area. If lengths of the lamp 112 and the reflecting mirrors 114 somehow could not be reduced, length of the shell casing 111 must remain. In other words, there is no way to miniaturize the scanning system. However, length of the lamp 112 and the reflecting mirrors 114 are designed according to size of the scanning window (maximum size of scan document) on the scanning platform 106. Thus, length of the lamp 112 cannot be reduced. Otherwise, the lamp 112 is incapable of producing a beam of light on the platform 106 for scanning a document. On the other hand, if the size of the scanning platform 106 is permitted to shrink, width of the scan document must be reduced. With a reduced platform dimension, the scanner no longer can scan an A4 size document.

FIG. 3 is a schematic side view of a conventional scanner with a book placed on the window ready for scanning. As shown in FIG. 3, the lamp 112 has a length greater than the width of the scanning platform 106. Due to size limitation at the opening section 104 and coverage of the casing 102 around the opening section 104, a scan document must be placed inside the window of the scanning platform 106 before scanning. However, the width of the window is often too narrow for a non-planar document such as the bound bind pages of a book 150 or a large size document. Consequently, the edges or the binding area of the book 150 may not receive enough illumination from the light source to produce a quality image.

One of the principal goals of this invention is to With so much limitations to consider, designing a scanning head with a smaller casing and a shorter lamp/reflective mirror[[s]] system inside the casing without affecting the scanning length and size of the scanning platform is one of the principle goals of this invention.

SUMMARY OF INVENTION

Accordingly, one object of the present invention is to provide a scanner with a scanning head having a scattering light source and a scanning platform having a wide transparent window. The scattering light source is able to provide illumination to a scan line length greater than or equal to the size of a document. Furthermore, the width of the window on the scanning platform can be increased to accommodate the width of an A4 size document so that the scanner has a better competitive edge.